B1 cont.

wherein the frequency of the clock signal [supplied to] utilized by said processor varies depending on the temperature of said processor.

3. (Once Amended) A computer as recited in claim 1,

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wherein said processor is a microprocessor, and

wherein said temperature sensor is thermally coupled to said processor.

5. (Once Amended) A computer as recited in claim [1] 3, wherein said computer is a portable computing device, and

B3

wherein by varying the frequency of the clock signal utilized by said processor, thermal management of said processor is performed.

Please ADD new claims 21-37 as follows:

--21. A computer, comprising:

a processor, said processor processes instructions in accordance with a clock signal;

B4 cont.

an activity detector operatively connected to said processor, said activity detector monitors activity of said processor;

a fan; and

a fan controller, said fan controller controls the speed of said fan in accordance with the activity of said processor.

1 1
27. A computer as recited in 21,

detector
wherein said activity determines whether said processor is in a low power state or a normal power state, and

wherein said fan controller causes the speed of said fan to be substantially decreased when said activity detector determines that said processor is in the low power state as compared to the speed of said fan when said processor is in the normal state.

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23. A computer as recited in 22, wherein the low power state is a sleep state.

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24. A computer as recited in 23, wherein when said fan controller causes the speed of said fan to be substantially decreased, said fan is stopped.

25. A computer as recited in claim 22, wherein said fan is thermally coupled to said processor.

26. A computer as recited in claim 22, wherein said fan controller uses pulse width modulation to control the speed of said fan.

27. A computer as recited in claim 21, wherein power consumption by said fan is substantially reduced by controlling the speed of said fan in accordance with the activity of said processor.

28. A computer as recited in claim 27, wherein said fan is thermally coupled to said processor.

29. A computer as recited in claim 28,

wherein said activity detector determines whether said processor is in a sleep state,

wherein said fan controller causes the speed of said fan to be stopped when said activity detector determines that said processor is in the sleep state, and

wherein said fan controller uses pulse width modulation to control the speed of said fan.

30. A computer as recited in claim 21,

wherein said computer further comprises:

a temperature sensor, said temperature sensor produces a temperature signal based on the temperature of said processor, and

wherein said fan controller controls the speed of said fan in accordance with the activity of said processor and the temperature of said processor.

31. A computer as recited in claim 30, wherein said temperature sensor is thermally coupled to said processor.

32. A computer as recited in claim 21,

wherein said computer further comprises a clock module, said clock module produces the clock signal having two or more different frequencies,

wherein said processor processes instructions in accordance with the clock signal supplied from said clock module, and

wherein the frequency of the clock signal is influenced by activity of said fan which serves as an indicator of the temperature of said processor.

33. A computer as recited in claim 21, wherein said computer further comprises:

a temperature sensor, said temperature sensor produces a temperature signal based on the temperature of said processor; and

a clock module, said clock module produces the clock signal having two or more different frequencies, the frequency of the clock signal varies depending on the temperature and the activity of said processor, and

wherein said processor processes instructions in accordance with the clock signal supplied from said clock module.

B4 cont.

34. A method for controlling speed of a fan that cools a microprocessor, said method comprising the operations of:

monitoring activity of the microprocessor;

producing a control signal based on the activity of the microprocessor; and

controlling the speed of the fan in accordance with the control signal.



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35. A method as recited in claim 34,

wherein said monitoring the activity of the ~~of said~~ microprocessor ~~processor~~ identifies whether the microprocessor is in a low power state or an active state, and

wherein said controlling of the speed of the fan operates to reduce power consumption of the fan while the microprocessor is in the low power state.

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36. A method as recited in claim 35, wherein said controlling of the speed of the fan is performed with pulse width modulation.

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37. A method as recited in claim 35,

wherein said method further comprises the operation of monitoring temperature of the microprocessor,

wherein said producing of the control signal operates to produce the control signal based on the activity of the microprocessor and the temperature of the microprocessor, and

wherein said controlling of the speed of the fan is performed in accordance with the control signal.--